

Notice of Allowability

Application No.

10/672,521

Examiner

Cheung Lee

Applicant(s)

TAKAYAMA ET AL.

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed on 10/20/06.
2. ☒ The allowed claim(s) is/are 26,27,29-32,34-37,39-42 and 44-49.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 11-08-2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20061207
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


MICHAEL LEBENTRITT
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Notice to Applicant

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on October 20, 2006 has been entered.

Response to Amendment

2. In view of applicants' amendment to the claim, the objection to claims 41-42, 44-45 and 49 has been withdrawn.
3. In view of applicants' amendments and arguments filed on October 20, 2006, the rejections of claims 26-27, 29-32, 34-37, 39-42 and 44-49 under 35 U.S.C. 103(a) as stated in the Office Action sent on July 20, 2006 have been withdrawn.

Examiner's Amendment

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Mark Murphy (Reg. No. 34225) on December 8, 2006.

5. The application has been amended as follows:

- In claim 26, line 9, substitute "wiring" with --gate electrode--
- In claim 36, line 10, substitute "wiring" with --gate electrode--

Reason for Allowance

6. Claims 26-27, 29-32, 34-37, 39-42 and 44-49 are allowed.

The following is an examiner's statement of reasons for allowance: claim 26 recites forming a first gate insulating film comprising silicon nitride over the gate electrode; forming a second gate insulating film over the first gate insulating film; and forming a semiconductor film over the second gate insulating film, wherein an amount of sodium contained within the gate electrode is 0.3 ppm or less. Claim 31 recites forming a semiconductor film comprising a channel forming region over the second gate insulating film; and forming an insulating layer to protect the channel forming region over the channel forming region, wherein an amount of sodium contained within the gate electrode is 0.3 ppm or less. Claims 36 and 41 recite forming a first gate insulating film comprising silicon nitride over the gate electrode; forming a second gate insulating film over the first gate insulating film; and forming a semiconductor film over the second gate insulating film; and crystallizing the semiconductor film, wherein an amount of sodium contained within the gate electrode is 0.3 ppm or less.

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Claims 27, 29-30, 32, 34-35, 37, 39-40, 42 and 44-49 variously depend from claim 26, 31, 36 or 41, so they are allowed for the same reason.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheung Lee whose telephone number is 571-272-5977. The examiner can normally be reached on Monday through Friday from 8:30AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lebentritt can be reached on 571-272-1873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cheung Lee

December 8, 2006



MICHAEL LEBENTRITT
SUPERVISORY PATENT EXAMINER